#### **CA TRAINING:**

**Module-4: Construction Authorization** 

# Sarker Rahman, PE Contracts and Specifications

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January 20, 2021



#### **ITEMS TO DISCUSS:**

- Recapitulation Sheets
- Capped Funds
- Funding Sources
- Understanding Strategies
- Challenges
- ADOT Experience with IDIQ contracts



#### **Recapitulation Sheets:**

- Detailed Recap. & Agreement Recap.
- Summary of all Project Construction Expenses
- Funding Sources & Shared Amounts
- Participating Agencies/Entities
- The Agency Estimate/ Awarded Bid Amount
- Non-Bid Items and Related Costs
- Improvements Codes



## **Recapitulation Sheets (Samples):**

#### DETAILED ESTIMATE RECAPITULATION

LOCATION: DESCRIPTION OF WORK: XXX

NIFTION OF WORK.

Federal Aid Project No. ADOT Project Number XX-XXXX-XXXX-0(XXXX)D

XXXXXX 01C

Sheet 1 of 1 XXX 05/24/2018

					STP-MAG				FUNDING TOTALS			
FHWA CODE NO.	DESCRIPTION		ESTIMATED COST (\$)	FEDERAL PARTICIPATION (\$)	FEDERAL STP FUNDS 94.30%	LOCAL FUNDS 5.70%	FEDERAL PARTICIPATION (\$)	FEDERAL STBGP FUNDS 94.30%	LOCAL FUNDS 5.70%	LOCAL FUNDS 100.00%	TOTAL FEDERAL FUNDS	TOTAL LOCAL FUNDS
03 03	Reconstruction - Added Capacity (Eligible) Reconstruction - Added Capacity (Local Contribution)		\$9,170,275 \$1,188,831	\$7,760,767	\$7,318,403	\$442,364	\$1,409,508	\$1,329,166	\$80,342	\$1,188,831	\$8,647,569	\$522,706 \$1,188,831
	SUBTOTAL:		\$10,359,106	\$7,760,767	\$7,318,403	\$442,364	\$1,409,508	\$1,329,166	\$80,342	\$1,188,831	\$8,647,569	\$1,711,537
17 03 17 03	Const Engr (Eligible) Contingencies (Eligible) TOTAL ELIGIBLE:  Const Engr (Local Contribution) Contingencies (Local Contribution) TOTAL Local Contribution:	15% 5% 15% 5%	\$1,375,541 \$458,514 \$1,834,055 \$178,325 \$59,442 \$237,766	\$1,164,115 \$388,038	\$1,097,760 \$365,920	\$66,355 \$22,118	\$211,426 \$70,475	\$199,375 \$66,458	\$12,051 \$4,017	\$178,325 \$59,442	\$1,297,135 \$432,378	\$78,406 \$26,135 \$178,325 \$59,442
	PROJECT TOTAL  TOTAL FEDERAL 94.3%  TOTAL LOCAL 5.7%  TOTAL LOCAL 100%  TOTAL	_	\$12,430,927 \$10,377,084 \$627,246 \$1,426,597 \$12,430,927	\$9,312,920	\$8,782,084	\$530,836	\$1,691,410	\$1,595,000	\$96,410	\$1,426,597	\$10,377,084	\$2,053,844

Notes:



#### **Recapitulation Sheets (Samples):**

#### AGREEMENT ESTIMATE RECAPITULATION

PROJECT:

Federal Aid Project No.:

ADOT Tracs No.:

City Of XXXProject No.:

Sheet 1 of 1 REVISED

ENGINEER:

DESCRIPTION		CODE.	ESTIMATED COST	FEDERAL PARTICIPATING	*FEDERAL FUNDS 94.3%	LOCAL FUNDS 5.7%	LOCAL FUNDS 100.0%	MILES (MI)
Traffic Management/Engineeri	ng HOV	5	\$1,190,210	\$1,716,673.00	\$1,122,368	\$67,842	\$0	
SUBTOTAL			\$1,190,210	\$1,716,673.00	\$1,122,368	\$67,842	\$0	0.
Construction Engineering	18.8%	17	\$223,563	\$223,563.00	\$210,820	\$12,743	\$0	
Contingency	0%	17	\$0	\$0.00	\$0	\$0	\$0	
Post Design Services	0%		\$0	\$0.00	\$0	\$0	\$0	
PROJECT TOTAL:			\$1,413,773	\$1,940,236.00	\$1,333,188	\$80,585	\$0	
						CITY=	\$80,585	
			·		1,413,773			

223,563

Total Federal (94.3%) =

Total Local (5.7%) =

Total Local (100%) =

Total Cost

\$1,333,188 \$80,585 \$0

\$1,413,773

Note: Federal Participation = \$1,333,188

Requesting to maintain same CE Cost amount approved on 4/13/2020



## **Recapitulation Sheets: (Samples)**

#### **DETAILED ESTIMATE** RECAPITULATION

HXXXX 01C

STBGP STP AC-NHPP XXX-C(XXX)T

CREATED: 08/21/20

REVD: 09/10/20

XXXX TRAFFIC INTERC	HANGE, GILBERT													NGINEER:	
	FMIS5 DETAIL					AC-NHPP/Z001		STPGP/Z240			AC-Z230/STBGP- ALCP		AC-Z230/STBGP-SPECIAL PROJECTS		
	PROV & LINE #S		FHWA	ESTIMATED	FEDERAL	FEDERAL	RARF	FEDERAL	RARF	RARF	FEDERAL	GILBER	FEDERAL	GILBERT	LENGTH
DESCRIPTION	(FOR FMS		CODE	COST	PARTICIPATION	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	IN MI
	USE ONLY)					94.30%	5.70%	94.30%	5.70%	100.00%	94.30%	5.70%	94.30%	5.70%	
	Z240-1, AC-Z001-1,														
LINDSAY ROAD TI	AC-Z001-2	l	03	22,449,390	22,449,390	9,201,138	556,166	9,201,138	556,166	2,934,782					6.840
WBOUND FRONTAGE RD	AC-Z230-1, AC-Z230-2		03	2,942,766	2,942,766						1,086,353	65,665	1,688,674	102,073	
TRAINEES	AC-Z001-3	1	42	14,400	14,400	6,790	410	6,790	410						
SUBTOTAL		$\vdash$		25,406,556	25,406,556	9,207,928	556,576	9,207,928	556,576	2,934,782	1,086,353	65,665	1,688,674	102,073	
-	AC 7004 A AC 7004 E	ł													
CONSTRUCTION ENGINEER	AC-Z001-4, AC-Z001-5, AC-Z230-3, AC-Z230-4	Fixed	17	1.740.000	1.740.000	630.687	38.122	630.687	38,122	199,896	74,960	4.531	115.985	7.011	
		Fixed		1,7 10,000	1,1 10,000	555,557	00,122	555,557	55,122	,,,,,,,,	,	1,001	,	,,,,,,,	
	AC-Z001-6, AC-Z001-7,														
CONSTRUCTION CONTINGENC	AC-Z230-5, AC-Z230-6	5%	03	1,270,328	1,270,328	460,396	27,829	460,396	27,829	146,739	54,318	3,283	84,434	5,104	
PAVEMENT INCENTIVES:															
AC SMOOTHNESS	AC-Z001-8	1	03	42,000	42,000	19,803	1,197	19,803	1,197						
AC QUALITY LOT (TI)	AC-Z001-9	Į.	03	16341	16341	7705	466	7705	466		0.540			242	
AC QUALITY LOT (FR) PCCP SMOOTHNESS (TI	AC-Z230-7, AC-Z230-8 AC-Z001-10	ł	03 03	7,449 14,700	7,449 14,700	6.931	419	6.931	419		3,512	212	3,512	212	
PCCP SMOOTHNESS FR	AC-Z230-9, AC-Z230-10	ł	03	6,300	6,300	0,831	418	0,831	418		2,970	180	2.970	180	
PCC QUALITY LOT (TI)	AC-Z001-11	1	03	41,742	41.742	19.681	1.190	19,681	1,190		2,070		2,070	100	
PCC QUALITY LOT (FR)	AC-Z230-11, AC-Z230-12	1	03	17,818	17,818		1,100	10,001	.,		8,401	508	8,401	508	
OTHER INCENTIVES		1			0										
FINAL RIGHT-OF-WAY MON	JMENTATION	l			0										
FLAGGING SERVICES		l			0										
RAILROAD/OTHER		ł			٥										
	AC-Z001-12, AC-Z001-13,	l													
PUBLIC RELATIONS	AC-Z230-13, AC-Z230-14	4	44	55,000	55,000	19,935	1,205	19,935	1,205	6,319	2,369	143	3,666	222	
OTHER					0										
SUBTOTAL	AC-Z001-14. AC-Z001-15. AC-			28,618,234	28,618,234	10,373,066	627,004	10,373,066	627,004	3,287,736	1,232,884	74,522	1,907,643	115,308	
ICAP 9.90%	Z230-15, AC-Z230-16	FY'21	44	2,833,205	2,833,205	1,026,934	62,073	1,026,934	62,073	325,486	122,055	7,378	188,857	11,416	
PROJECT TOTAL:				31,451,439	31,451,439	11,400,000	689,077	11,400,000	689,077	3,613,222	1,354,939	81,900	2,096,500	126,724	6.840

NOTE: PDS is Town of XXXX Responsibity.



### **Recapitulation Sheets: (Samples)**

## AGREEMENT ESTIMATE RECAPITULATION

XXX MA XXX HXXXX 01C XXX-C(XXX)T

XXXX XXXX TRAFFIC INTERCHANGE

CREATED: XX/XX/20

REVISED:

ENGINEER: XXXX X.

AXXX XXXX TRAFFIC INTERCHANGE													^^^^		
				NHPP	9	TPGP - FLE	X	ELIG	STBGP-ALCP		STBGP-SPECIAL				
			FHWA	ONTRACTOR'	FEDERAL	FEDERAL	RARF	FEDERAL	RARF	RARF	PEDEKA	LOCAL	FEDERAL	LOCAL	LENGTH
DESCRIPTION			CODE	BID	PARTICIPAT	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	FUNDS	IN MI
					17.61	94.30%	5.70%	94.30%	5.70%	100.00%	94.30%	5.70%	94.30%	5.70%	
LINDSAY ROAD TI			03	20,141,912	20,141,912	9,201,138	556,166	9,201,138	556,166	627,304					6.840
WBOUND FRONTAGE RD			03	1,634,043	1,634,043						603,224	36,462	937,679	56,678	
TRAINEES			42	14,400	14,400	6,790	410	6,790	410						
SUBTOTAL				21,790,355	21,790,355	9,207,928	556,576	9,207,928	556,576	627,304	603,224	36,462	937,679	56,678	
CONSTRUCTION ENGINEERING		Fixed	17	1,740,000	1,740,000	630,687	38,122	630,687	38,122	199,896	74,960	4,531	115,985	7,011	
POST DESIGN SERVICES		Fixed	17												
CONSTRUCTION CONTINGENCY		5%	03	1,089,518	1,089,518	460,396	27,829	460,396	27,829	31,365	30,161	1,823	46,884	2,834	
PAVEMENT INCENTIVES															
AC SMOOTHNESS			03	42,000	42,000	19,803	1,197	19,803	1,197						
AC QUALITY LOT (TI)			03	16,341	16,341	7,705	466	7,705	466						
AC QUALITY LOT (FR)			03	7,449	7,449						3,512	212	3,512	212	
PCCP SMOOTHNESS (TI)			03	14,700	14,700	6,931	419	6,931	419						
PCCP SMOOTHNESS FR)			03	6,300	6,300						2,970	180	2,970	180	
PCC QUALITY LOT (TI)			03	41,742	41,742	19,681	1,190	19,681	1,190						
PCC QUALITY LOT (FR)			03	17,818	17,818						8,401	508	8,401	508	
FLAGGING SERVICES															
RAILROAD/OTHER															
PUBLIC RELATION			44	55,000	55,000	19,935	1,205	19,935	1,205	6,319	2,369	143	3,666	222	
OTHER															
SUBTOTAL				24,821,223	24,821,223	10,373,066	627,004	10,373,066	627,004	864,883	725,599	43,859		67,644	
ICAP	9.90%	FY'21	44	2,457,301	2,457,301	1,026,934	62,073	1,026,934	62,073	85,623	71,834	4,342	110,791	6,697	
PROJECT TOTAL:				27,278,524	27,278,524	11,400,000	689,077	11,400,000	689,077	950,506	797,433	48,201	1,229,889	74,341	6.840

NOTE: PDS is the responsibilty of the Town of XXXX



#### **Capped Funds:**

- Identify Applicable Capped Funds on the Project
- Designate Dedicated Column in the Recap for Each Capped Funds
- May Need Dedicated Sections in the Estimate
- May Need to Adjust Unit Prices
- May Need to Know the Order of Using Capped Funds



#### **Funding Sources:**

- Identify Applicable Funding Sources for the Project
- Designate Dedicated Columns in the Recap for Each Type of Funds
- Need Dedicated Sections in the Estimate for Each Type of Funds
- Need to Know the Order of Using Each Type of Funds
- May Need to Adjust Unit Prices (?)



## **Understanding Strategies:**

- Understanding the Overall Project
- Develop Reliable Detailed Estimate
- > Identify Applicable Funding Sources
- > Identify Applicable Capped Funds
- > Identify Ineligible Item of Work
- Know the Item of Work Does it Need to be Tracked
- Know the Order of Funds to Use
- Update the Decision Makers in a Timely Manner



#### **Understanding Strategies:**

Are you lonely?

Hate having to make decisions?

Rather talk about it than do it?

Then why not

#### HOLD A MEETING

Feel important

Sleep in peace

Offload decisions

Get to see other people

Impress (or bore) your colleagues

Learn to write volumes of meaningless notes

And all in work time



#### 'MEETINGS'

The Practical Alternative to Work

http://www.cvr-it.com/images/Hold\_a\_Meeting.gif



#### **Challenges:**

- > Lack of Understanding the Overall Project
- Poor/Unreliable Detailed Estimate
- Lack of Information of Applicable Funding Sources
- > Lack of Information of Capped Funds
- > Failing to Identify Ineligible Items of Work
- Failing to Know the Items of Work Need to be Tracked
- > Failing to Know the Order of Funds to Use
- Failing to Update the Decision Makers in a Timely Manner



#### **Challenges:**



https://www.thinktankconsulting.ca/taxonomy/term/166



# ADOT Experience with Indefinite Delivery Indefinite Quantity (IDIQ) contracts:

- > The Low Cost Contract, Task Order may not Exceed \$2M/Year on Average
- > Shall be Award by Competitive Bidding
- ➤ A Short Term 2 Year Base Contract, Extensions Generally will not be Allowed. In some situations, with FHWA approval may be Extended, with Extension the Contract Period shall not Exceed 5 Years.



# ADOT Experience with Indefinite Delivery Indefinite Quantity (IDIQ) contracts:

The Contract will be Single Award-Task Order Contract (For Multiple Awards-Task Order Contracts will require SEP-14 Approval)

The Contracts shall be in Compliance with all Federal Requirements (Such as Title 23, NEPA, DBE Provisions..)



#### **ADOT Experience (IDIQ) contracts:**

- "Construction of ADA Compliant Ramps" in SW District is the First ADOT IQIQ project is still under Construction.
- ➤ The program amount was \$1.16M. Only one bid was submitted and the bid was 12.7% below the State Estimate.
- There is an option in the Contract to issue Task Order assignments which shall be a minimum of \$0.25M and will not exceed \$2.0M/Year on average over the contract period. The Contract may be extended to a maximum of 3 years.



# **CA\_TRAINING:**

**Module-4: Construction Authorization** 

**Contracts and Specifications**Questions and Comments:







Thank you for Your time and Attention and Stay Safe.

